

10/552102  
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PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)		Application Number	Not Yet Accorded 11/552102
		Filing Date	Not Yet Accorded 10/3/2005
		First Named Inventor	Mark C. Hanna
		Art Unit	Not Yet Accorded 2812
		Examiner Name	Not Yet Accorded E. ULLAH
		Attorney Docket Number	NREL IR 01-14
Sheet 1	of 2		

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
/E.U./	1	US- 4,963,508	10/16/1990	Umeno et al.	
	2	US- 5,002,618	03/26/1991	Kanai et al.	
	3	US- 5,264,389	11/23/1993	Hamada et al.	
	4	US- 5,744,829	04/28/1998	Murasato et al.	
	5	US- 5,944,913	08/31/1999	Hou et al.	
	6	US- 5,959,307	09/28/1999	Nakamura et al.	
	7	US- 6,100,546	08/08/2000	Major et al.	
	8	US- 6,150,604	11/21/2000	Freundlich et al.	
	9	US- 6,232,138 B1	05/15/2001	Fitzgerald et al.	
	10	US- 6,281,426 B1	08/28/2001	Olson et al.	
/E.U./	11	US- 6,300,558 B1	10/09/2001	Takamoto et al.	
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FOREIGN PATENT DOCUMENTS						
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		Country Code <sup>3</sup>	Number Kind <sup>4</sup> Code <sup>5</sup> (if known)			

Examiner Signature	/Elias Ullah/	Date Considered	11/05/2007
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Sheet 2 of 2	Attorney Docket Number	NREL IR 01-14	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/E.U./	1	Yamada, A. et al., "Ion implantation of isoelectronic impurities into InP," Nuclear Instruments and Methods in Physics Research B80/81 (1993) 910-914, North Holland.	
	2	Xin, H.P. et al., "Ga <sub>0.01</sub> P <sub>0.99</sub> red light-emitting diodes directly grown on GaP substrates," Applied Physics Letters, Vol. 77, Number 13, 25 Sept. 2000, 1946-1308.	
	3	Biwa, Goshi et al., "Metalorganic vapor-phase epitaxy of Ga <sub>1-x</sub> Al <sub>x</sub> As <sub>y</sub> N <sub>1-y</sub> quaternary alloys on GaP," Journal of Crystal growth 189/190 (1998) 485-489, Elsevier Science.	
	4	McConnell, R.D. and Kapur, V.K. "Photovoltaics for the 21st Century II," Energy Technology Division, Proceedings Vol. 2001-10, The Electrochemical Society, Inc.	
/E.U./	5	Hong, Y.G. and Tu, C.W., "Ga(In)NAs and (Al)GaNP: Potential Materials for Photovoltaics", Electrochemical Society Proceedings Volume 2001-10, 415-423.	
/E.U./	6	Xin, H.P. et al., "Gas-source MBE growth of Ga(In)NP/GaP structures and their applications for red light-emitting diodes," Journal of Crystal Growth, 227-228 (2001) 558-561, Elsevier Science	

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